



## The Speed Skill of High School Athletes in Supporting Achievement in Karate Martial Arts


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**Abstract:** Karate martial arts is one of the full body contact martial arts. In karate martial arts there are two types of categories namely Kata (art) and Kumite (fighting). In the kumite / fight (fighter) class, its success is greatly influenced by kime. The *kime* process occurs due to movements performed with speed, explosive power and strength occurring simultaneously by following the rules in the match. The biomotor component of speed plays a role in the development of karateka's potential to become athletes who excel both nationally and internationally. Speed is not only emphasized in athletes but also in those who want to learn karate both at elementary school, junior high school, high school and college levels. Therefore, speed training must have many models and coaches must be innovative in creating speed training models for high school students by paying attention to the anatomical structure and physiology as well as the biomechanics of motion according to the speed needs in karate martial arts. And the discussion in this study is 1) how is the speed transfer in karate martial arts at the high school level? 2) How do karate martial arts athletes respond to speed training provided by the coach? This research uses qualitative research. The sample was athletes aged 15-17 years or athletes in high school and coaches who train in high school. Information was collected using observation sheets and questionnaires. From the investigation it was found that: 1) routine and programmed training is carried out at the training ground 2) training still uses the old model and has not adjusted as the needs of the athlete and gives the impression of monotony so that athletes easily feel bored.

**Keywords:** Karate, High School, Speed, reaction

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## Introduction

Karate is a martial arts sport originating from Japan, developed on the island of Okinawa which was originally created by a master named Gichin Funakoshi (Mamadaliyeva & Nurmamatova, 2023). In Karate movement techniques have basic movements, ranging from stances, parries, punches, and kicks (Greco & De Ronzi, 2020). In karate there are two groups of movements or categories of movements, namely Kata (moves) and Kumite (fighting) (Santos, 2016). However, to perform both categories, all basic techniques in karate must be well mastered (Navickaitė & Thomas).

Karate is a branch of martial arts that is performed with full body contact called the kumite category (Ioannides et al., 2020). However, it has rules in matches that prioritize the safety of athletes when competing (PAL, 2020). Movement in karate martial arts contains kime (Ojeda-Aravena et al., 2021), this kime is influenced by several biomotor components including speed, explosive power, strength and flexibility (Doder et al., 2021). The combination of these biomotor components produces maximum kime if performed at the same time in one or two movements in fighting (Šć epanovi ć & Vlahovi ć, 2013).

Indonesia is one of the countries that makes karate martial arts as a superior martial arts sport, this is evidenced through several international karate martial arts championships, both multi-event Indonesian karate martial arts athletes often win international events (Riyadi et al., 2020). The linkage of karate martial arts talent development in Indonesia can be seen from elementary school to university (Prasetyo & Djawa, 2021), this is associated with the existence of Student Sports Competitions (KOS) for karate martial arts branches ranging from regional to national levels (KOSN) which are held annually in collaboration between the ministry of education and the ministry of sports (Utami et al., 2021). So that some schools have provided special talent coaching for students who want to excel in karate. However, there are still many schools that have not fulfilled what their athletes need so that athletes' achievements when participating in inter-secondary school competitions, besides that the coach has not fulfilled these needs so that his athletes can get maximum performance at competitions between karate martial arts clubs (Imamura et al., 2019). Therefore, increasing the biomotor component of speed achievement of karate martial arts athletes needs to be a special concern in terms of training models and coach innovation in training, especially for athletes who are in high school.

This research focuses on the speed problem of karate martial arts athletes in the kumite category at high school, where the speed problems that the author examines are kick speed and punch speed. Speed in karate martial arts

has a dominant influence (Al-Lami, 2020) on the high performance of karate martial arts athletes when fighting in the dojo (training) or during the match.

This study is very important to be a source of information for researchers themselves and for karate coaches and athletes who want to improve speed in an effort to produce good kime (Trisnar Adi Prabowo, 2020) so as to obtain high performance. In addition, the results of this study also serve as an evaluation to obtain solutions to the problems of karate martial arts speed in high schools. This study explores the problems of speed in punches and kicks of karate athletes. So that in the end conclusions can be drawn regarding solutions to create good speed for karate martial arts athletes in high school. This study also serves as a reference for future researchers to develop new training methods and create new instruments for the speed of karate martial arts athletes in high schools.

### Research Problem

The research problem of this study is formulated into these questions:

- (1) How is speed training for high school athletes?
- (2) How do students who are also athletes respond to karate speed training?

### Method

This study uses qualitative research which aims to describe actual phenomena (Sugiyono, n.d.). The sample was ten karate martial arts athletes who were in high school and 2 karate martial arts coaches in Bone Regency. The instruments used were: 1) Observation Sheet, 2) Questionnaire. This research was conducted for one month at Dojo Inkanas Bone Regency, South Sulawesi.

### Results

From the observations of coaches and high school student athletes, it was found that coaches have not found new innovations in training speed and still apply the old training model. This means that the coaches know the importance of speed training to improve the performance of athletes who are still in high school. Below are the results of the researcher's observations of karate coaches in high school.

#### Results from observation

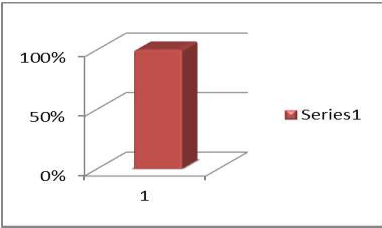
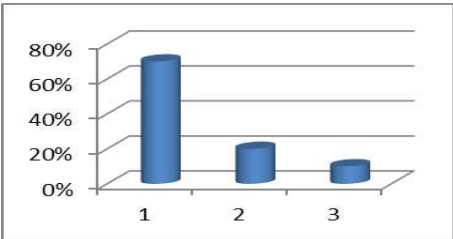
No.	Indicator	The Result of observation			
		1	2	3	4
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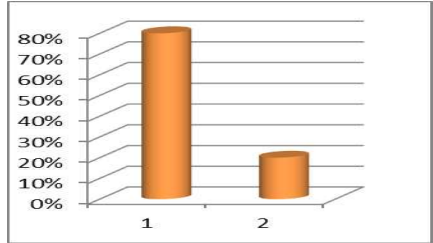
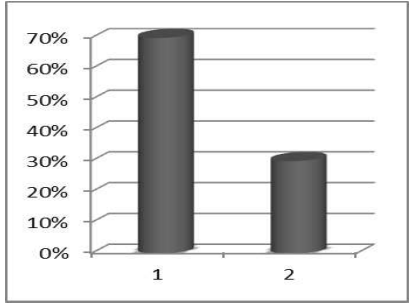
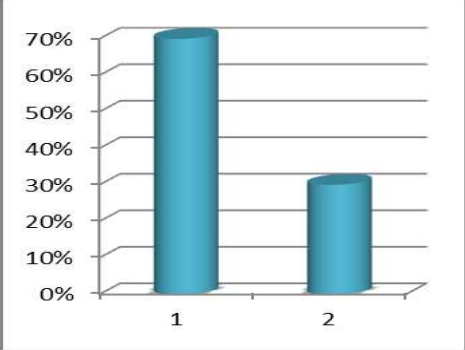
1	Coach has a Coach License/Certificate	✓	✓		
2	Coaches understand the importance of training speed in high school athletes	✓			
3	The coach has a regular training program for his athletes	✓			
4	The coach provides speed training material that encourages athletes in training	✓			
5	The training model used is not monotonous	✓			

Figure 1. results observation

## Discussion

The questionnaire was administered to ten high school athletes. There were five questions given to the athletes which aimed to find out the athletes' opinions on speed training. The researcher has created an instrument to collect information:

No.	Question	Answer
1	<p>Do you know that speed in karate is important because it is essential for successful movement during a fight?</p> <p>a. Yes, I know b. Yes, I know, but a little c. No, I don't know</p>	<p>10 athletes (100%) answered that they know that speed in karate martial arts is important because it supports the success of movement when fighting.</p> 
2	<p>Does speed training at the dojo suit your needs as an athlete?</p> <p>a. Yes, it does b. Yes, but a little c. No, not appropriate</p>	<p>7 athletes (70%) answered that speed training at the dojo suits the needs of athletes to support their achievements in the fighting category. 2 athletes answered that it was slightly appropriate and 1 athlete answered that it was not in accordance with his needs as an athlete.</p> 

<p>3</p>	<p>Does the speed training material provided help improve the athletes' punching and kicking speed?</p> <p>a. Yes, it helps b. Yes, it helps, but a little c. No, not helpful</p>	<p>8 athletes or (80%) answered that the speed training material provided helped increase the athlete's punching and kicking speed. 2 athletes answered that it helped a little in increasing their speed..</p>  <table border="1"> <caption>Data for Speed Training Material Effectiveness</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>80%</td> </tr> <tr> <td>2</td> <td>20%</td> </tr> </tbody> </table>	Category	Percentage	1	80%	2	20%
Category	Percentage							
1	80%							
2	20%							
<p>4</p>	<p>Does your coach provide an interesting speed training model that keeps you engaged during training?</p> <p>a. Yes, interesting b. Yes, interesting, but a little boring c. No, not interesting</p>	<p>7 students (70%) answered that the coach provided interesting speed training material and made the high school athletes excited during training. 3 athletes chose the answer a little interesting and boring to the material given by their coach.</p>  <table border="1"> <caption>Data for Coach Training Model Interest</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>70%</td> </tr> <tr> <td>2</td> <td>30%</td> </tr> </tbody> </table>	Category	Percentage	1	70%	2	30%
Category	Percentage							
1	70%							
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<p>5</p>	<p>Does your coach provide speed training regularly?</p> <p>a. Yes, regularly b. Yes, but little c. No, not routine</p>	<p>70 athletes (70%) answered that the coach provides speed training regularly. 3 athletes answered that there was little routine regarding the speed training provided by the coach.</p>  <table border="1"> <caption>Data for Coach Training Regularity</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>70%</td> </tr> <tr> <td>2</td> <td>30%</td> </tr> </tbody> </table>	Category	Percentage	1	70%	2	30%
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1	70%							
2	30%							

## Conclusion

From the results of observations and observations of data based on questionnaires given to high school athletes, researchers can draw the conclusion that the speed training provided at the dojo has not fully met the needs of athletes, athletes feel that the speed training provided has not fully increased the speed of punches and kicks on athletes when fighting, athletes think that the speed training model has not fully attracted athletes during training and speed training is not routine. Therefore, there needs to be a routine training program for speed and supported by a better speed model so that the enthusiasm of athletes during training increases so that the speed of athletes in carrying out movements also increases.

## Notes

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